BIOLOGICAL ASSESSMENT
FOR
CANADA LYNX
(Lynx canadensis),

Mud Creek Project

West Fork Ranger District
Bitterroot National Forest

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SIGNATURE DATE

Summary

Determination of Effects

This Biological Assessment (BA) analyzes the effects of implementing the Bitterroot National Forest (Forest) Mud Creek Project (Appendix A, Map 1). Implementing the proposed federal action ***may affect, but is not likely to adversely affect*** the threatened Canada Lynx and has ***No Effect*** on grizzly bear or yellow-billed cuckoo.

Recommendations for Removing, Avoiding, or Compensating Adverse Effects

The National Environmental Policy Act (NEPA, 1969) Environmental Assessment includes a new process to define measures to avoid or reduce undesirable outcomes associated with project elements to Canada lynx and grizzly bears. This Condition-based NEPA analysis new format follows a tiered schedule of an implementation process (Appendix B), which breaks up the larger project area into smaller geographic areas with treatment options delineated by design features depending on the specific activity carried out in a specific location.

Consultation Requirements

The Endangered Species Act (ESA, USA 1973) requires all Federal agencies to ensure that actions authorized, funded, or carried out by those agencies are not likely to jeopardize the continued existence of any threatened, endangered, or proposed species, or result in the destruction or adverse modification of their critical habitat.

Prior to a final decision, the Forest must request written concurrence from the United State Fish and Wildlife Service (Service) with respect to determinations of potential effects to Canada lynx in accordance with the ESA and Forest Service Manual 2671.4 (U.S. Department of Agriculture 2005). No designated critical habitat exists for grizzly bears and no designated critical habitat exists on the Forest for Canada lynx, nor is the Forest considered occupied by Canada lynx by the Service. The proposed action may impact suitable habitat for lynx and this Biological Assessment analyzes those effects and complies with Section 7 of the ESA of 1973 (as amended), 50 CFR § 402.12, CFR 219.9 of the NFMA regulations, and Chapter 2670 of the Forest Service Manual. The effects determination for grizzly bear is ***No Effect***. This species is currently "not present" in the project area or any of the delineated Grizzly Bear Analysis Units around the project area. The effects determination for yellow-billed cuckoo is ***No Effect***. No suitable habitat for this species (riparian areas with cottonwoods and willows) exists in the project area, and the species appears to be an accidental vagrant in the Bitterroot drainage. Effects to these species will not be analyzed further in this BA.

Need for Re-Assessment Based on Changed Conditions

The best current data and scientific information informed the findings in this BA. Revision is required if: (1) new information reveals effects, which may impact threatened, endangered, and proposed species or their habitats in a manner or to an extent not considered in this assessment; (2) the proposed action is subsequently modified in a manner that causes an effect, which was not considered in this assessment; or (3) a new species is listed or habitat identified, which may be affected by the action.

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1.0 Proposed Action

1.1 Background and Action Area

This Biological Assessment (BA) addresses the potential effects to the threatened Canada lynx (lynx) from implementing the Bitterroot National Forest (Forest) Mud Creek Project (Project) on the West Fork Ranger District. The project area lies approximately 21 air miles south-southwest of Darby and 15 air miles west of Sula and totals about 48,500 acres of National Forest System (NFS) lands that encompass portions of the Upper West Fork Bitterroot River, Lower West Fork Bitterroot River, and Nez Pierce Fork 5th code HUC watersheds (Appendix A, Map 1). The legal location of lands in the project area contains part or all: T1N R22W Sec 25, 31-36; T1N R21W Sec 20-21, 27-34; T1S R23W Sec 1-2, 11-12,13-16, 19-30, 35-36; T1S R22W Sec 1-34; T1S R21W Sec 3-10, 16-20.

The action area (Appendix A, Map 2) is defined as all areas potentially affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR § 402.02), and is described in greater detail in Section 2.2.

1.2 Description of Proposed Action

The proposed action consists of a suite of potential vegetation and fuels treatments, road management activities, and a project-specific Forest Plan amendment for elk habitat objectives. The Project is adapting a vegetation treatment approach that provides flexibility to respond to changes in stand vegetative conditions during the life of the project based on the desired conditions and how management actions will meet the purpose and need of the project. In addition, the proposed action includes building approximately 10 miles of permanent road, 34 miles of temporary road, 4.8 miles of new trails, and decommissioning approximately 22 miles of system and non-system roads, 35 miles of trails, and converting 21 miles of road to trail (Table 1).

Table 1. Miles of Road by proposed action per HUC12 Watershed

HUC12 Watershed	Add to system - Store	Convert to Trail (Decomm Rd, maintain trail)	Decommission	Decommission - Non System	Maintain - Close TROAD	Store	Decommission Trail	Spec Rd Construction	Temp Rd Construction	New Trail Construction	New Trail from Road	New Trail from Road	New Trail from Temp Road
Little West Fork			1.21	0.61	0.40	1.12		0.88	4.47				
Lloyd Creek-West Fork Bitterroot River				0.13					2.15				
Lower Blue Joint Creek		13.89	3.42	1.17		0.40	19.85		3.53	1.78			
Nez Pierce Fork	0.30	0.97	4.13	3.71		7.80	1.74	3.97	10.85	0.79	0.87	0.53	0.64
Painted Rocks Lake-West Fork Bitterroot River				0.75			0.06		0.40	0.25			
Rombo Creek-West Fork Bitterroot River	0.46	6.15	4.79	1.60		6.18	13.19	4.91	12.40	0.19	0.04		0.64
Watchtower Creek			0.34										
Grand Total	0.76	*21.01*	*13.90*	7.98	*0.40*	*15.49*	*34.84*	*9.76*	*33.80*	*3.09*	*0.58*	*0.08*	*1.28*

An implementation process (Appendix B) tiers to the NEPA Environmental Assessment (EA) that requires the Forest to fulfill pre-implementation surveying and post-implementation monitoring to ensure activities fulfill the purpose and need of the project, operate within the parameters authorized by the EA decision, and comply with design features specific to each project activity. Each individual action that occurs (e.g. low intensity prescribed burn, road maintenance, group select single tree treatment) is directed by a design feature outlining the how, what, when, where, and why for each activity as well as resource-specific constraints or thresholds to that activity. Full descriptions of the proposed action are contained in the Mud Creek Scoping Letter (Appendix C), and the full Implementation Process and design features are included in the appendices of the EA.

1.3 Design Features and Mitigation Measures

The implementation process (Appendix B) requires surveying all stands subject to treatment before any activity occurs in order to assess compliance with the Northern Rockies Lynx Management Direction (U.S. Department of Agriculture 2007b, 2007c).

1.4 Timing and Duration

Implementation of project activities are expected to occur over an approximate 10-15 year timeframe.

1.5 Related ongoing actions

1.5.1 Travel Management Plan

The Forest completed an update to the forest travel management plan in 2016 (U.S. Department of Agriculture 2016b). The purpose and need for the updated travel management plan was to:

- Address conflicts between motorized and nonmotorized uses;
- Improve quality of the recreational experience;
- Integrate resource considerations into the route system;
- Address confusion regarding where and when motorized use can occur and what types of vehicles are allowed; and
- Ensure consistency with the 2005 Travel Management Rule.

This proposed action will implement certain components of the Travel Management Plan in the project area that required further NEPA analysis when the Travel Management Plan Record of Decision was signed, including the changes exhibited in Table 1. All of these proposed actions would follow the Travel Management Plan direction.

1.6 Consultation History

Canada lynx were previously consulted on for the Forest Plan (U.S. Department of Agriculture 2007a) and the Travel Management Planning Process (U.S. Department of Agriculture 2013, U.S. Department of the Interior, Fish and Wildlife Service 2013). The Service issued a Biological Opinion on the "likely to adversely affect" determination (U.S. Department of the Interior, Fish and Wildlife Service 2007), and concurred with the Forest effects call of "may affect, not likely to adversely affect" for the Travel Plan on September 6, 2013 (U.S. Department of the Interior, Fish and Wildlife Service 2013).

The Forest met with Service personnel about the Mud Creek Project on July 30, 2019 to discuss the proposed actions and consultation on the NEPA condition-based approach. This approach analyzes a larger landscape Project area that will be divided into implementation areas. Project activities, timelines, and areas for treatment are guided through an implementation schedule on a smaller scale. Decisions on when and where project activities are guided by input from collaborative groups, input from the public, and need to treat specific areas. All potential treatments within the entire project area are consulted on, followed by implementation of specific actions in specific areas over a continuing timeline. The Service and the Forest discussed the consultation approach regarding this new process and how to consult on

effects to endangered species without knowing the scale of each implementation action. Multiple phone conversations regarding this consultation occurred throughout 2019 and the winter of 2020.

2.0 Species Assessment - Canada Lynx

2.1 Current Status on the Bitterroot National Forest and Life History

The current status of Canada lynx (lynx) on the Forest and life history of lynx have been documented in previous publications and biological assessments and only briefly summarized here. See the McCart Lookout Final BA (USDA 2019b), US Department of the Interior (2014b) and Interagency Lynx Biology Team (2013) for recent summaries.

Forest wildlife crews and volunteers organized and trained by the Defenders of Wildlife established multi-carnivore bait stations designed to detect fisher, marten, wolverine and lynx at 40 to 60 locations distributed across the Forest every winter since 2013-2014 (545 total sites), including 48 sites (some sites monitored multiple years) within the action area (Appendix A, Map 2). No lynx have been detected at any of these stations, although numerous bobcats, martens and wolverines were confirmed by photos and/or DNA analysis.

2.2 Environmental Baseline

Action area/Spatial and Temporal Bounds

In 2000, the Canada Lynx Conservation Assessment and Strategy (Ruediger et al. 2000) recommended that Lynx Analysis Units (LAUs) be identified for all areas with lynx habitat "to provide analysis units of the appropriate scale with which to begin the analysis of potential direct and indirect effects of projects or activities on individual lynx, and to monitor habitat changes" (Ruediger et al. 2000). The Project intersects five different LAUs and the action area includes all acres within the LAUs within the administrative boundary of the Forest (308,084 acres) , as well as all other ownership acres, totaling approximately 316,076 acres (Table 2; Appendix A, Map 2).

Table 2. Percent of LAUs in the project area

Area	Total Acres	Acres in the Project Area	% of the Project Area
Mud Creek Project Area[1]	48,486		
Little Boulder-Chicken Creek LAU	35,443	646	1
Nez Perce Fork-Little Blue Joint LAU	56,012	24,361	50
Piquett-Black LAU	50,502	17,091	35
Rock-Ward LAU	127,521	2,266	5
Soda Springs-Sheephead LAU	38,607	2,320	5
Total[2]	**308,084**	**46,684**	**96**

[1] Mud Creek Project Area includes acreage in all ownerships

[2] This number differs from project area total acreage because only NFS lands are included.

This action area, consisting of five LAUs, was chosen because the project area contains portions of each LAU and is large enough to evaluate the ability of the habitat to support lynx, but small enough to not obscure the effects of the proposed action. Only National Forest System lands are included in the analysis of direct and indirect effects, whereas all land ownerships within the action area are included in the analysis of cumulative effects (section 3.0).

Short-term temporal bounds of ten to fifteen years during project implementation capture the effects analysis, but discussion regarding longer-term effects speak to the resulting vegetational succession, not potential disturbance.

Lynx Specific Direction

Bitterroot Forest Plan Lynx Direction
The Bitterroot National Forest Plan (U.S. Department of Agriculture 1987) did not contain any direction specific to lynx. However, the Northern Rockies Lynx Management Direction (NRLMD, U.S. Department of Agriculture 2007c) was amended into the Forest Plan in 2007 by the NRLMD Record of Decision (ROD, U.S. Department of Agriculture 2007b). Objectives, standards and guidelines contained in the NRLMD now provide lynx direction in the Forest Plan.

The NRLMD ROD states that "the management direction only applies to occupied lynx habitat." The NRLMD ROD further states that in areas of unoccupied, mapped lynx habitat, the National Forest "should consider the management direction that is now incorporated into their Forest Plans when developing projects, but are not required to follow the management direction until such time as they are occupied by Canada lynx". However, in 2009 Regional Forester Tom Tidwell issued a memo (Tidwell 2009) that directed Forests currently considered unoccupied, including the Bitterroot National Forest, to "consider the management direction found in Attachment 1" of the 2007 NRLMD ROD. Furthermore, this letter directs unoccupied forests to consider lynx management direction using the "Northern Rockies Lynx Management Direction Standards and Guidelines Consistency Evaluation Table for Project Specific Activities" (Appendix D).

2.3 Existing Condition in the Action Area

Habitat

Lynx habitat mapping on the Forest has gone through a number of iterations. In 2018, the Forest mapped habitat through a GIS process based on procedures developed by the Lolo National Forest. In 2020, the Beaverhead-Deerlodge National Forest, and Forest Service Region 1 wildlife and GIS staffs modified that Forest's mapping process, which incorporated recent research, which prompted the Bitterroot National Forest to re-evaluate currently mapped habitat. The Beaverhead-Deerlodge process refined mapped habitat to identify areas of the cooler, moister habitat types that support the true fir/spruce habitat types that lynx select. Habitat type data was used where available. Jones Potential Vegetation Type (PVT) classifications were used where habitat type data was lacking. In addition, aspect and snow depth data were incorporated to identify where certain habitat types exist based on topography and climatic conditions. The Forest is currently refining our mapping process to apply these applicable parameters and recent science to refine lynx habitat on the Forest. This modeling process has currently identified primary and secondary lynx habitat (Table 4; Appendix A, Map 3) based on the process the Beaverhead-Deerlodge used, discussions with the Forest Service Region 1 Lynx Biologist, and with assistance from the Forest Service's Geospatial Technology and Applications Center (GTAC).

Table 3. Lynx Habitat by LAU in the Project Area

Area	Total Acres	Total Mapped Lynx Habitat	Acres of LAU in the Project Area	% of LAU in the Project Area	Mapped Lynx Habitat in Project Area	% of total mapped lynx habitat in Project Area by LAU
Mud Creek Project Area[1]	48,486				15,655	13
Little Boulder-Chicken Creek LAU	35,443	21,781	646	1	271	2
Nez Perce Fork-Little Blue Joint LAU	56,012	40,037	24,361	50	10,346	66

Piquett-Black LAU	50,502	13,673	17,091	35	3,615	23
Rock-Ward LAU	127,521	43,773	2,266	5	282	2
Soda Springs-Sheephead LAU	38,607	21,044	2,320	5	1,141	7
Total for Analysis Area[2]	**308,084**	**140,308**	**46684 [2]**	**96**	**15,655**	**11**

[1] Mud Creek Project Area includes acreage in all ownerships

[2] This number differs from project area total acreage because only NFS lands are included.

The Forest then refined the mapped lynx habitat using VMap data in combination with stand exam and activity databases and field verification to determine existing structural stages for this mapped lynx habitat. This draft model and results is used to determine compliance with the NRLMD standards and guidelines (U.S. Department of Agriculture 2007b) during the implementation phases of the project activities (Table 4; Appendix A, Map 4).

Table 4. Mapped lynx habitat by structural stage in each LAU

LAU	Little Boulder-Chicken Creek		Nez Perce-Little Blue Joint		Piquett-Black		Rock-Ward		Soda Springs-Sheephead	
Lynx Habitat Structural Stage	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Early Stand Initiation	9,573	44%	5,623	14%	4,532	33%	13,069	30%	4,260	20%
Mature Multistory	1,697	8%	9,576	24%	2,420	18%	10,502	24%	4,571	22%
Other	8,410	39%	22,457	56%	5,393	39%	18,666	43%	11,805	56%
Stand Initiation	1,875	9%	1,009	3%	362	3%	41	0%	42	0%
Stem Exclusion	226	1%	1,372	3%	966	7%	1,494	3%	365	2%
Total	**21,781**	**100%**	**40,037**	**100%**	**13,673**	**100%**	**43,773**	**100%**	**21,044**	**100%**

Mapped lynx habitat is scattered throughout the LAUs at mid to upper elevations in the action area but is generally confined to cooler northern aspects. Approximately 45% (140,308 acres) of the action area is classified as mapped lynx habitat, of which 11% (15,655 acres) lies within the project area.

Due to the topography and climate of the action area, most of the habitat in the action area (and the project area) does not accurately fit into the habitat types described in the NRLMD (U.S. Department of Agriculture 2007b). From field visits and ground truthing, there are some scattered younger stands that represent stand initiation structural stage, comprised mostly of mixed lodgepole pine on cooler northern aspects. Stem exclusion structural stages are represented by older lodgepole stands that have started self-pruning lower limbs and do not provide adequate winter snowshoe hair habitat. During site visits, a large majority of the other mapped stands don't accurately represent mature/multi-story structural stage that provides winter snowshoe hair habitat, but instead are either single story mature stands with little to no ground cover, or multistory stands that lack horizontal cover to adequately provide snowshoe hair habitat. Examples of these stands are shown in Figures 1-4 (Appendix E). While some of these areas may contain habitat minimally suitable for winter snowshoe hare occupancy, most do not contain the tree density or horizontal cover necessary to support snowshoe hare.

Lynx Use

No confirmed detections of lynx in the action area have occurred in over 35 years despite inventory efforts described in section 62.1.

2.4 Effects Analysis

The proposed action will change the status of some lynx habitat in the project area by re-arranging the age class, tree density, or temporary horizontal cover potential of some stands. Because of the condition-based NEPA approach including implementation areas, no current treatment areas exist with which to analyze for agreement with the NRLMD, however the Implementation Process requires a Forest wildlife biologist to verify lynx habitat suitability before vegetation management can proceed.

For this analysis, the assumption was made that all mapped potential lynx habitat, would be converted to Early Stand Initiation, with the exception of mapped multistory habitat and mapped habitats inside of Wilderness Study Areas and Inventoried Roadless Areas, as vegetation management through commercial harvest is not allowed in these areas. Therefore, the following represents the maximum potential change to the existing condition if all currently mapped lynx habitat inside the project area is converted to Early Stand Initiation (Table 5; Appendix A, Map 5). The net positive change of lynx habitat from existing condition to post-treatment is constrained to Early Stand Initiation, which varies in each LAU (Table 6).

Table 5. Mapped lynx habitat in each LAU resulting from implementing the proposed action on all non-multistoried stands

LAU	**Little Boulder-Chicken Creek**		**Nez Perce-Little Blue Joint**		**Piquett-Black**		**Rock-Ward**		**Soda Springs-Sheephead**	
Lynx Habitat Structural Stage	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Early Stand Initiation	9,799	45%	8,307	21%	5,796	42%	13,285	30%	4,814	23%
Mature Multistory	1,697	8%	9,576	24%	2,420	18%	10,502	24%	4,571	22%
Other	8,184	38%	19,946	50%	4,389	32%	18,453	42%	11,276	54%
Stand Initiation	1,875	9%	877	2%	303	2%	41	0%	42	0%
Stem Exclusion	226	1%	1,330	3%	765	6%	1,490	3%	341	2%
Total	**21,781**	**100%**	**40,037**	**100%**	**13,673**	**100%**	**43,773**	**100%**	**21,044**	**100%**

Table 6. Net change in acres and percentage of existing habitat to habitat post-treatment by LAU

LAU	**Little Boulder-Chicken Creek**		**Nez Perce-Little Blue Joint**		**Piquett-Black**		**Rock-Ward**		**Soda Springs-Sheephead**	
Lynx Habitat Structural Stage	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Early Stand Initiation	225	1%	2,685	7%	1,264	9%	217	0%	554	3%
Mature Multistory	0	0%	0	0%	0	0%	0	0%	0	0%
Other	-225	-1%	-2,511	-6%	-1,004	-7%	-213	0%	-530	-3%
Stand Initiation	0	0%	-132	0%	-59	0%	0	0%	0	0%
Stem Exclusion	0	0%	-42	0%	-201	-1%	-4	0%	-24	0%
Total	0	0%	0	0%	0	0%	0	0%	0	0%

Currently, the Little Boulder-Chicken Creek, Piquett-Black, and Rock-Ward LAUs do not meet NRLMD standard Veg S1(Table 4) which states: "If more than 30 percent of the lynx habitat in an LAU is currently in a stand initiation structural stage that does not yet provide winter snowshoe hare habitat [Early Stand Initiation], no additional habitat may be regenerated by vegetation management projects." Therefore, in these three LAUs, some vegetation treatments may be restricted pending field verification from the Forest wildlife biologist, depending on assessed on-the-ground condition of stands prior to treatment in accordance with the implementation process (Appendix B) and the NRLMD.

Each implementation phase of planned treatments must adhere to the implementation process that includes pre- and post-implementation surveying and monitoring, which includes verifying the structural stage of any mapped lynx habitat. The implementation process requires the Forest to adhere to the NRLMD with respect to standards and goals. See Appendix D for further information regarding compliance with the NRLMD.

Stands dominated by subalpine fir and spruce contain the most suitable vegetative structure and composition to provide habitat for lynx. The project proposed action focuses on restoration of drier ponderosa pine and Douglas-fir stands that do not provide lynx habitat, but also includes treatments in more mesic stands that do provide suitable habitat for lynx.

Commercial, non-commercial and prescribed fire treatments in units that are not classified as mapped lynx habitat would not affect the amount of lynx habitat in the action area. These units would retain varying amounts of overstory and understory conifers depending on prescription, and would also retain course woody debris (CWD) and snags if available to meet CWD and snag retention guidelines. These habitat components would provide sufficient prey and cover that these units would not be barriers to the movements of transient lynx.

Proposed units within mapped lynx habitat are located both within and outside the Wildland/Urban Interface (WUI). Units outside of the WUI are designed to meet applicable NRLMD standards and guidelines. Units within the WUI are exempted from NRLMD standards and guidelines, but would retain sufficient habitat components that these units would not be barriers to the movement of transient lynx. Implementation of some of these units would reduce the amount of lynx habitat in suitable condition in the short term.

Transient lynx that happened to be in the project area during implementation could be disturbed and/or displaced by vegetation management activities, prescribed fire activities, or actual fire activity or smoke. Disturbed or displaced transient lynx could move very short distances into the adjacent Selway-Bitterroot Wilderness Area or any of the nearby IRAs or WSAs mentioned in section 2.2 above. Surrounding areas would retain enough habitat components that the proposed action would not be a barrier to the movement of transient lynx.

Due to the fact that the Forest is currently unoccupied by lynx, no lynx have been detected in the action area in decades, and all project activities will follow the NRLMD, the effects to lynx are expected to be very low.

3.0 Cumulative Effects

Cumulative effects are the effects of past, present and future state, tribal, local or private actions that have occurred, are occurring, or are reasonably certain to occur in the action areas. The existing condition reflects the sum of past actions. The action areas contain private, state, and NFS lands (Table 7). The analysis of cumulative effects provides a larger context in which to evaluate existing conditions and the effects of continuing to implement the forest plan. This section discusses the effects of management on adjoining federal, state and private lands, the potential for connectivity for species, and the ongoing effects of climate change.

Table 7. Ownership percentages in the different action areas.

Ownership	Lynx Action Area Acres	Percent of Action Area
Bitterroot National Forest	308,084	97%
State of Montana	7,110	2%
Private	882	0%

Total	**316,076**	100%

Most State and private lands are at low elevations and are generally not classified as lynx habitat. Past activities on private lands include home construction, home and yard maintenance and some timber harvest. Past activities on State lands include road construction and timber harvest. Lynx trapping is not permitted in Montana, but public education material is available to reduce incidental trapping of lynx for trappers targeting other species. There are no reasonably foreseeable timber harvest projects on State or private lands. Home and yard maintenance activities and construction on private lands will likely continue.

The effects to lynx and lynx habitat from these types of actions on State and private lands include potential disturbance or displacement due to human presence, motorized use and other mechanized equipment, and minor changes in forested condition classes. All of these activities had or have the potential to impact lynx or lynx habitat on State or private lands in the action area. This is unlikely however, because there is only a limited amount of mapped lynx habitat on State or private lands, and no lynx have been sighted in the action area for over 35 years.

3.1 Climate Change

The extent and rate to which individual plant species or plant communities will be impacted by climate change is not possible to foresee with any level of confidence (Walther et al. 2002, Fagre et al. 2003). Fire frequency and severity are predicted to increase in the western United States as a result of climate change. Large, severe wildfires that convert mature forest to early successional condition alter the availability of suitable lynx habitat and cover, potentially changing how lynx may use the landscape. Lynx rely on deep fluffy snow in the winter for hunting and as a competitive advantage to other forest carnivores. There is a high degree of uncertainty, but the continuing effects of climate change are unlikely to reduce the ability of the Forest to support occasional lynx moving into or through the action area.

4.0 Determination of Effects and Rationale

Implementation of the proposed Federal action ***may affect, is not likely to adversely affect*** Canada lynx. This determination is based on the following rationale:

1. The project occurs in secondary, unoccupied lynx habitat. There have been no lynx detections in the action area in over 35 years, and the project area is 50 miles south of the southern edge of the nearest designated Critical Habitat (core habitat). Transient lynx are not expected to occur in the action area during or after project implementation. Therefore, direct and indirect project effects to lynx are unlikely (discountable);

2. If disturbance of presumably transient lynx did occur it would be temporary and insignificant, because disturbed lynx could disperse into the adjacent Selway-Bitterroot Wilderness or several nearby inventoried roadless areas. Therefore, potential effects of disturbance and displacement of individual lynx would be insignificant;

3. The project maintains connectivity of lynx habitat. Transient lynx would still be able to traverse the action area. Therefore, effects to movements of transient lynx would be insignificant;

4. Using design features and the pre- and post-monitoring requirements delineated in the Implementation Process, project implementation areas will adhere to the standards and guidelines of the NRLMD (Appendix D). Transient lynx would still find adequate prey and habitat resources

to sustain them as they moved through each LAU. Therefore, effects of the project to transient lynx would be insignificant.

It is important to remember the focus of secondary areas in the Revised Lynx Conservation Strategy (Interagency Lynx Biology Team 2013). It is "providing a mosaic of forest structure to support snowshoe hare prey resources for individual lynx that infrequently may move through or reside temporarily in the area" and that landscape connectivity should be maintained to allow for movement and dispersal. This proposal would provide a mosaic of forest structure to support snowshoe hares now and in the future and would maintain landscape connectivity.

There will be ***no effect*** to lynx critical habitat because no critical habitat is designated within the action area or the Forest (U.S. Department of the Interior 2014a).

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